ANNUAL REPORT

1986 - 1987

Alberta

WATER RESOURCES COMMISSION

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WATER RESOURCES
COMMISSION

Office of the Chairman

910 Harley Court, 10045 - 111 Street, Edmonton, Alberta, Canada T5K 2M5 403/422-4232

The Honourable Dr. P. N. Webber
Chairman, Economic Planning and
Resource Development

Sir:

I have the honour to present the Annual Report of the Water Resources Commission for the year ending March 31st, 1987.

Respectfully submitted,

Glen Clegg, M.L.A.
Acting Chairman

Alberta
ENERGY

228 Legislature Building, Edmonton, Alberta, Canada T5K 2B6 403/427-3740

Office of the Minister

February 8, 1988

Her Honour Helen Hunley
Lieutenant-Governor
of the Province of Alberta

Madam:

I have the honour to hereby transmit the Annual Report of the Water Resources Commission for the year ended March 31, 1987.

Respectfully submitted

Neil Webber

Neil Webber
Minister

ALBERTA WATER RESOURCES COMMISSION
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During this fiscal period, the Alberta Water Resources Commission continued and broadened its advisory role, co-ordinating the interdepartmental consideration of the uses and protection of the water resources of the province. Recommendations on water resource management policies were officially made and initial consideration of implementation policy was also advanced. The Report and Recommendations on the South Saskatchewan River Basin (S.S.R.B.) was officially released to the public. The affected member departments commenced detailed consideration of the advice and recommendations to evaluate present and potential adaptations to policy for the future.

The evaluation of drainage potential in Alberta continued and the report on this major integrated study was basically completed by the end of the period. The scope of the study and analysis which was increased last year has provided a very comprehensive background inventory and summary of issues and recommendations. With the concentration of wetlands in agricultural areas being to a very large degree in the northern and east central parts of the province in a variety of forms, the report and its recommendations concentrate in those areas.

In recognition of the many forms water management must take the Commission has increased its scope of co-ordinating review ranging from single farm drainage projects and problems to the larger scale farmland flooding associated with the Buffalo Bay zone in the delta area of Lesser Slave Lake, the stabilization of Lesser Slave Lake itself, through to soil and water conservation on a very broad scale across the province as a whole.

The Commission is providing a review process and advice in the Agriculture department's development of the Alberta component of a National Agricultural Soil and Water Conservation Strategy.

In recognition of the extensive public interest in water and drainage management improvements, particularly for northern Alberta, the Commission is assisting the Northern Alberta Development Council in the development of a water resource background document and preparation for a conference on that subject to be held in Grande Prairie in November of 1987. This process is aimed at providing information on water management to the public and receiving their inputs with respect to present and future programs and policies.

ISSUES AND ACTIVITIES

During the year, the Commission continued to actively consider both short term and long term water resource policy issues including drainage, water conservation, and some initial implementation policy recommendations:

— evaluated drainage problems and flood control in the Buffalo Bay area at the west end of Lesser Slave Lake and the stabilization of the Lesser Slave Lake water levels culminating in recommendations to the Cabinet Committee on Economic Planning and Resource Development to retain the current stabilized lake level and to selectively purchase high frequency flooded areas in the lake perimeter and upstream delta areas, where justified economically;

— continued to monitor and financially support sub-basin drainage evaluations in the northwest agricultural area of the province. During this fiscal period, public input was also obtained with a series of open houses throughout the region conducted by Environment who are leading this study. Technical reports were completed on six Water Management Units in conjunction with local authorities. Plans were advanced for an additional seven Water Management Units largely in the northern Alberta Improvement Districts;

— the drainage inventory evaluation study and report development was substantially completed during the fiscal period and readied for submission to the government for consideration and release. The evaluation and report was managed by Alberta Environment under the direction of an interdepartmental committee of Environment; Agriculture; and Forestry, Lands, and Wildlife. The report is comprehensive and includes a summary of major conclusions and recommendations covering a wide range of wetland types, impacts on agriculture, an evaluation of habitat and wildlife needs and a good deal of economic information and weighting. This is a major study and has been an important addition for better defining, not only drainage requirements, but modifications to the drainage practice, water consolidation options, and improved methodologies for the consideration of the natural and wildlife values;

— continued participation in drought monitoring to consolidate background conditions and information for government consideration should the drought observed in the previous two years continue. The 1986 agricultural season was, however, much improved over the previous two years although there were imbalances and significant geographic variations in the moisture conditions throughout the year. On average across the province, the overall agricultural production was good. Continued progress was reported with respect to securing surface water supply dugouts and in the extension of utility type supply systems in a number of the chronically water short areas;

— the report and recommendations on Water Management in the South Saskatchewan River Basin developed by the Commission panel was completed, printed, and offically released on October 30th, 1986. The staff of the Commission representing the Panel reviewed the report with individual member departments to consider the recommendations. The Commission commenced to deal with specific issues where adaptations to current policies were deemed to require either modification or increased emphasis. The major policy recommendations included:

(a) the designation of instream flow limits;

(b) to restrict growth of large scale consumptive licenses for irrigation within the limits of the water supply as it will be managed with the facilities available at the completion of the present rehabilitation and expansion phases;

(c) the reservation of water supplies to permit reasonable growth in new areas; and,

(d) highlighting water conservation and water use efficiency needs with respect to irrigation water use. The Alberta Irrigation Projects Association held a one-day conference totally related to this efficiency theme in November of 1986 in response to these needs. Commission representatives participated in this conference;

— continued participation in committee activity including agriculture, industry, government, and general public input towards the development of updated groundwater management policy primarily to assure effective use of groundwater aquifers in a manner which will protect long term domestic and farm uses while permitting industrial uses, particularly oil well flood projects, by establishing a groundwater withdrawal operating limits policy and process. The public representatives, including agriculture and industry members, expressed extreme interest in a clearly defined and balanced policy and that it should be implemented as early as possible.

— continued to monitor the development of implementation plans for the North American Waterfowl Management Plan. The Commission recommended that consideration of landowners be included in all phases of the implementation planning since they provide many of the wetlands and also bear the brunt of crop losses by waterfowl;

— reviewed the water supply and impacts in the Highwood/Little Bow area where there is a potential for water shortages for both the irrigators and the instream needs on the Highwood River. The Department of Environment has put a moratorium on further licencing from this source and has developed several different management scenarios to improve the situation. These scenarios involving storage options primarily were presented at public meetings during the reporting period. The Commission recommended an establishment of the instream flow regime which must be maintained and accomodated in any water supply management plan;

— continued to support the agricultural land irrigability analysis in southern Alberta associated with potential irrigation areas. This analysis is scheduled for completion in 1987, and will concentrate on infilling areas to complete the classification of lands and the options to choose from for selecting future expansions from the managed water supply. The total completed by March 31st, 1987 was 1,557,270 acres;

— monitored transboundary issues including the Prairie Provinces Water Board topics, the MacKenzie Basin negotiations and potential Milk River storage;

— reviewed the reports on the weather modification studies done for Agriculture by the Alberta Research Council, noting that the potential cost effectiveness of weather modification was currently inconclusive;

— initiated a discussion of the objectives for charging for water as a resource commodity of value with impacts for revenue production and to induce conservation. As part of this process the equity issue related to water development investment was observed to be a significant concern to other publics and regions. In this process, the Commission reviewed the new farmland tax assessment process with particular reference to the comparison between irrigation and dryland agriculture;

— examined the Integrated Resource Planning process as it relates to matters of water management. Specifically the Commission reviewed the Sturgeon Lake-Puskwaskau East plan as it related to the effects on water quality and the multi-purpose use of Sturgeon Lake. The Commission agreed that it was beneficial that this planning format included multi discipline consideration of the options and that its role would be to consider the results of this planning but not be directly involved in the planning process;

— continued participation in an advisory role in the Agricultural Land Base study especially with regards to summary report preparation and eventual release;

— reviewed progress on the Oldman Dam project including the mitigation planning for fisheries, instream protection requirements, negotiations with the Peigan Indians and public attention;

— reviewed report findings on the water quality downstream of the two major cities in the province which included specific quality findings, the treatment standards and methods, and the current priority needs. Water quality was found to be generally good while citing the need for continued comprehensive monitoring and updating;

— approved a proposal for a multi-disciplinary On-Farm Water Management study to investigate and demonstrate the possiblities for improved methods of farm water management including controlled drainage, consolidation and other variations to economize, safeguard important habitat, and to reduce erosion. The proposal arose from the recommendations of the Drainage Inventory Study (Drainage Potential in Alberta: An Integrated Study);

— agreed to the principle of development of an Agricultural Soil and Water Conservation Strategy, including participation by all affected departments and to serve as a review group for this development by Agriculture; and

— reviewed reports on the flood situation on the Pembina and North Saskatchewan Rivers, including the effects on municipalities and farmland.

The Commission held eight regular meetings during the year and the Panel and staff met with departments and regional groups to discuss the recommendations of the South Saskatchewan River Basin and hearings report. Staff and members also attended conferences on water efficiency and management processes and met with individuals from other jurisdictions to clarify recommendations made in these areas.

The Water Resources Commission Act was amended to increase public membership from three (3) to four (4). Philip Walker of Edmonton was appointed as a replacement member, and Tom Gilchrist from the Milk River area was appointed as the fourth public member. Glen Clegg, M.L.A. Dunvegan was appointed a member of the Commission replacing Dr. R. Elliott, M.L.A. Grande Prairie, who became Chairman of the Northern Alberta Development Council.

Commission member Dr. A. Olson, Assistant Deputy Minister of Agriculture, resigned to take a senior position with Agriculture Canada. He was replaced by Douglas Radke, Assistant Deputy Minister with the Department of Agriculture.

MAJOR WATER MANAGEMENT ISSUES

The major concentration of the Commission in this period applied to water management processes and future initiatives in the S.S.R.B. and in the consideration and implementation of improvements for drainage requirements which concentrate largely in northern Alberta.

South Saskatchewan River Basin Water Management Policy:

The Commission's report was released in October of 1986. Action has been commenced on four significant issues which were cited in the panel's analysis and through discussions at Commission meetings as follows:

1. action has been recommended for the designation of instream flow requirements and minimum limits to ensure multi-use requirements are met and to accommodate overall water quality and control requirements;

2. the Commission commenced discussion respecting clarification and adjustment of projected growth in irrigation and facilities development which will be necessary to stay within the water supply which will be managed with the current phase of expansion projects;

3. reservation of supplies to permit reasonable usage in new areas and to assure some flexibility for water allocations;

4. continued water conservation and efficiency initiatives in all water uses with specific emphasis for the large scale uses in agriculture including both management facilities and operations.

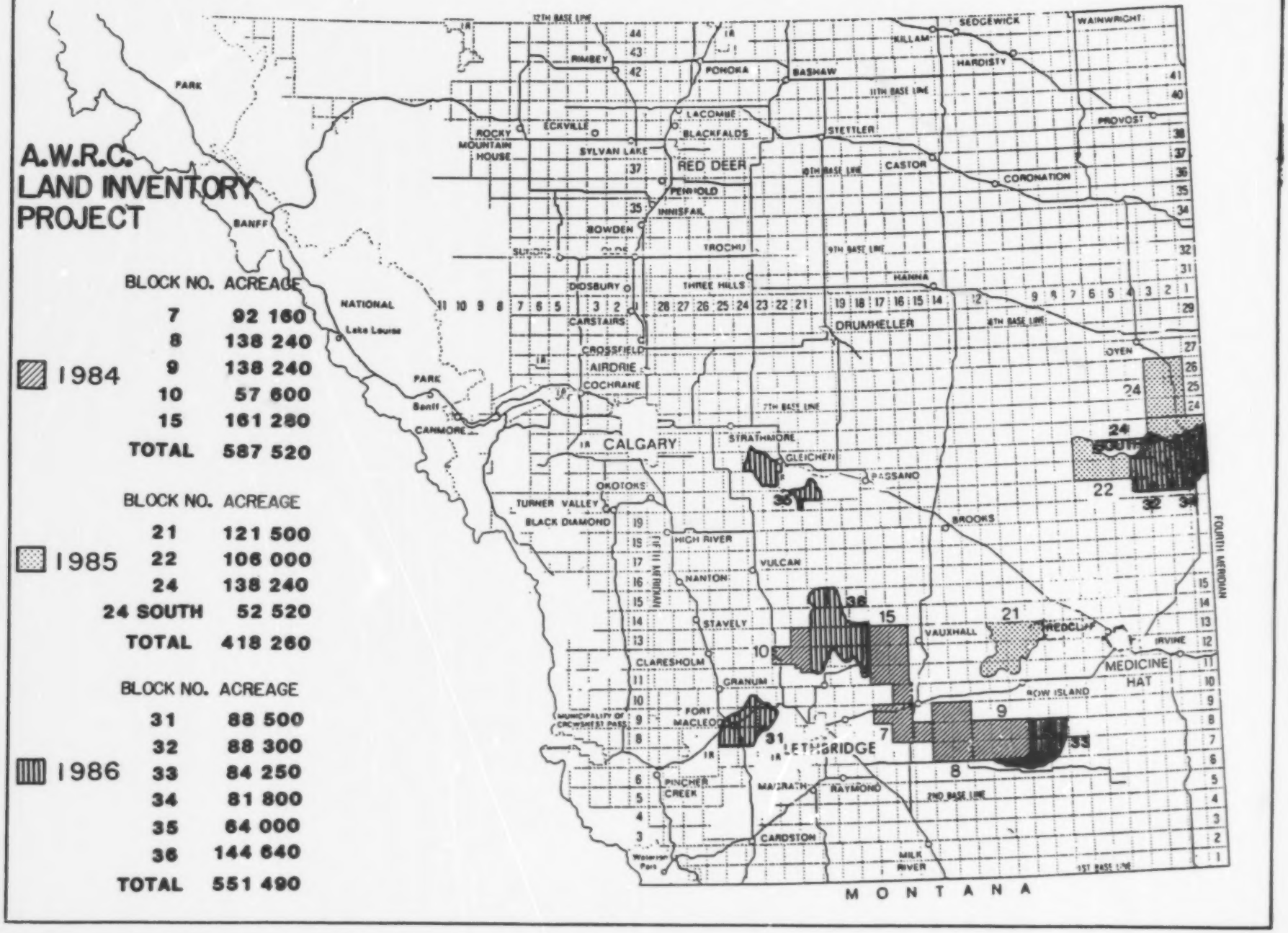
Drainage Potential in Alberta — An Integrated Study:

This report, from the Inventory of Alberta's Drainage Requirements study, was largely completed ready for the consideration of the Cabinet Committee on Economic Planning and Resource Development and for release. It included significant background and recommendations for improvements in the consideration and development of drainage projects. A number of these recommendations set the stage for commencement of further and more specific trials and investigations, including the following:

1. the need for a multi-disciplinary on-farm water management analysis to investigate and demonstrate improved methods of farm water management including controlled or regulated drainage, consolidation of surplus water and variations of these where appropriate. Discussions with the farming community when analyzing drainage requirements in small drainage basins emphasized the need for assistance to evaluate and for demonstration;

2. interdepartmental discussions commenced respecting the need to improve the evaluation and weighing process regarding habitat protection and the development of a supportable protection policy. It is anticipated that work on this issue will be initiated in the next fiscal year.

A.W.R.C. LAND INVENTORY PROJECT



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